

**To:** Allen.Sorenson@state.co.us[Allen.Sorenson@state.co.us]  
**From:** Way, Steven  
**Sent:** Fri 5/8/2015 2:00:23 PM  
**Subject:** FW: Red and Bonita Mine - bulkhead and Gold king mine portal rehab plans

Allen,

Maybe we can go over this the week of May 18 when I am back from my trip. I do not want to get into an email exchange with ARSG on this in advance of our meeting. I'll be traveling through next Friday, but we can connect if needed; I'm with our R10 colleagues.

Thanks,

Steve

Steven Way

Federal On-Scene Coordinator

Emergency Response Unit

US EPA - Region 8

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**From:** [Personal Email/Ex. 6]  
**Sent:** Friday, May 08, 2015 7:29 AM  
**To:** Way, Steven; 'Peter Butler'; [Personal Email/Ex. 6] Lewis, Brent; 'Kirstin Brown - DNR'; 'Randy Perlis'; 'Todd Hennis'; 'Larry Perino'; 'Lisa Richardson'; 'Stover - DNR, Bruce'; 'William Tookey'  
**Cc:** Schmitt diel, Paula; Fagen, Elizabeth; Allen.Sorenson@state.co.us; Peterson, Cynthia  
**Subject:** RE: Red and Bonita Mine - bulkhead and Gold king mine portal rehab plans

Steve,

Thank you for forwarding the requirements and specifications for the bidding of the Red & Bonita bulkhead construction. It is detailed enough that even I can understand it. I do have a few comments but first I want to point out that the document is mainly for bidding purposes but does not touch upon the equally important (to the public) issues of the purpose of the action, the anticipated goals or results, how the results will be monitored, and what impact they may have on other actions connected to the draining adits in the near vicinity (American Tunnel, Gold King, and Mogul. As I brought up the subject at Tuesday's meeting, I had hoped for something that addressed these issues much like an EECA usually does. With the high personnel turnover in the work place and the public's short memory span it would be nice to clarify why this project is needed and what results are anticipated.

Now as for comments on the requirements and specifications for bulkhead construction. 1). It appears the rebar used will not be coated. Was this considered given the acid environment? 2) Is the ¾" pipe for monitoring and possible injection adequate in size? Also shouldn't it extend up both drifts since water comes from both? 3) Is 316 SS really necessary for the temporary cofferdam conveyance? Wouldn't HDPE do the same thing at far less expense? Will the 8" pipe be grouted shut (I missed reading this point). 4). 2.11 – I would suggest the data logger be connected and operated continuously, if possible, to assure it is not damaged during construction and not noticed. 5) 2.13 – refers to item 10.1 but there is no 10.1—it is actually item 8.1 that discusses installation of the DENEFF tube. This should be corrected and referred to in 3.0 to prevent a contractor from forgetting to install the tube. 6) As concrete fills the form is there a way for the displaced air to exit? And finally 7) If and when ever methane or H2S gas should develop where does it go? There does not appear to be any provision for this.

Thanks again for providing an opportunity to comment upon the bid specs. Bill

**From:** Way, Steven [<mailto:way.steven@epa.gov>]

**Sent:** Friday, May 01, 2015 11:18 AM

**To:** Peter Butler; Bill Simon; [Personal Email/Ex. 6] Lewis, Brent; Kirstin Brown - DNR; Randy Perlis; Todd Hennis; Larry Perino ([larry.perino@kinross.com](mailto:larry.perino@kinross.com)); Lisa Richardson ([lrichard@blm.gov](mailto:lrichard@blm.gov)); Stover - DNR,

Bruce; William Tookey

**Cc:** Schmittiel, Paula; Fagen, Elizabeth; [Allen.Sorenson@state.co.us](mailto:Allen.Sorenson@state.co.us); Peterson, Cynthia

**Subject:** RE: Red and Bonita Mine - bulkhead and Gold king mine portal rehab plans

Hello all;

As follow up to the questions raised at Tuesday's ARSG meeting about the status of the Red and Bonita work, I am providing this information in advance of our planned update at the May meeting. In short, we have been preparing to perform the work that we discussed with the ARSG and county commissioners last fall with respect to installing a bulkhead in the Red and Bonita adit and removing blockage/portal rehab at the Gold King adit. Work at the Gold King is being coordinated with our planning for the Red and Bonita work, which we hope will provide some cost efficiencies with crew and equipment.

#### Red and Bonita Mine: Status Report

1. The design specification for the bulkhead is attached for your information and review. (This will also be placed in the information repository at the library with associated design basis documentation.) The bid package with the design was released in mid-April to potential bidders, and we expect bids back in May.
2. Subcontractor selection will occur by May 30<sup>th</sup> assuming the bids are acceptable.
3. Onsite work is planned to begin at least by July 10<sup>th</sup> if not sooner depending on ground conditions.
4. Bulkhead construction is targeted for completion on or before September 30, 2015 including grouting after which, valve closure can occur within a week. This allows for monitoring subsequent to the closing of the valve and before winter conditions settle in.
5. Solids management and associated water treatment from mucking out the mine will occur at the Red and Bonita as the first step in July.
6. Monitoring before and after the bulkhead installation / valve closure is planned for various locations including the adits in Cement Ck.

The design basis includes a conservative assumption of 540 psi for the hydrostatic pressure on the bulkhead. This is based on a theoretical water elevation at Lake Emma; this was used as a maximum possible elevation given an effective small difference in bulkhead length and concrete requirements. However, a more realistic value for a likely pressure has been derived and is considerably less than the Lake Emma pressure.

## Gold King Mine: Status Report

As you know we adjusted our plans based on findings last fall when we started the removal of the blockage at the adit. The current elevation of the top of the dump appears to be approximately 4 to 6 feet above the floor of the adit. A revised approach to the debris removal and portal construction were developed this winter, and is outlined in general below. Again, we did review this with ARSG members in the fall, and we will be able to discuss this again in May.

1. A conceptual design and basic specifications have been developed based on standard DRMS plans for portal construction using 10 ft diameter CMP. This is being used versus steel arch sets because of the nature of the terrain and ground conditions at the adit.
2. Re-grading a portion of the waste dump will be required initially to lower the receiving channel for the current discharge.
3. Water management during the removal of the blockage will be operated in similar manner to that at the Red and Bonita. We are planning on having to deal with a larger volume of water than originally anticipated based on the fact that there is a 4 to 6 foot impoundment at the beginning of the adit.
4. Entry into the workings will depend on the conditions encountered following the portal construction. (On this topic, in the past I have requested mine workings maps from members of the ARSG who indicated that they do have such maps. As you know, such maps would be very useful to the operations prior to and during the work.)

This information is provided as a preliminary outline of the plans that are still being developed. As for the bulkhead design details, while the bid package has been released with the design, if necessary, appropriate modifications can and will be made. The opportunity for input to the specifics remains open and I look forward to discussing this with the group in late May.

Sincerely,

Steve

Steven Way

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